



Learning Journey

A good maths GCSE at grade 4 or 5 will support your application for college and sixth form courses, apprenticeship and job opportunities.

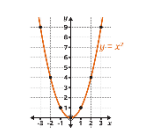


YEAR 12+



Written Exam 3 Papers

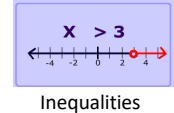
Exam Questions and Techniques



Quadratic Graphs

Exponential Growth Problem
 $f(t) = a(1+r)^t$
 a = initial amount
 r = rate of increase (growth rate)
 t = time

Growth & Decay



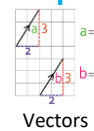
Inequalities



Direct and Inverse Proportion

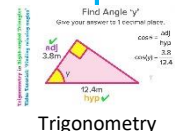


Revision



Vectors

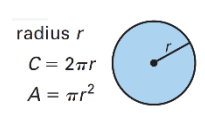
Solving Quadratic Equations
 $x^2 + 3x - 4 = 0$



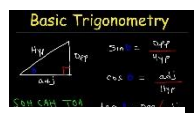
Trigonometry

HOW TO USE $y = mx + c$

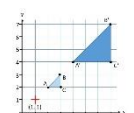
Graphs Recap and Extension



Further Circumference and Area

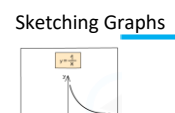


Introduction to Trigonometry



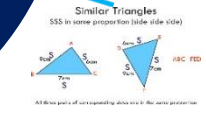
Transformations

Algebra; Quadratics and Rearranging Formulae



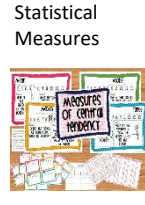
Sketching Graphs

Congruence and Similarity



Similar Triangles
SSS in same proportion (side side side)

YEAR 11

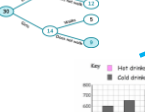


Statistical Measures

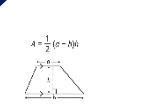
Expanding $2(g + 4) = 2g + 8$

Algebra Recap and Extension

Basic Probability Review



Collecting and Representing Data



Probability

Simultaneous Equations
 $(1) 3x + 4y = 24$
 $(2) 4x + 3y = 22$

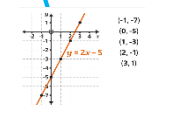
Simultaneous Equations

Ratio and Proportion Review

RATIOS compare VALUES
PROPORTIONS compare RATIOS



Volume

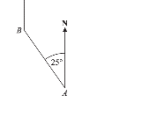


Algebra and Graphs

$2x - 3 = -7$

Sequences
6, 10, 14, 18, 22
 $+4$

Sequences

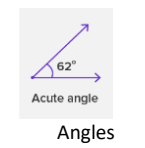


Scale Drawings and Bearings



Properties of Polygons

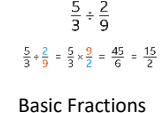
YEAR 10



Angles

Basic Algebra
 $6x + 2 = 2(3x + 1)$

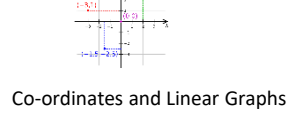
Basic Algebra



Basic Fractions

Equations
 $2x - 3 = -7$

Equations



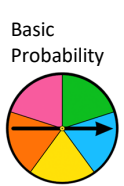
Co-ordinates and Linear Graphs

Ratio and Proportion
 $20 : 32$
 $5 : 8$

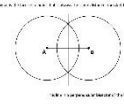
Ratio and Proportion

Standard Form
 2.9×10^1
 3.50×10^2

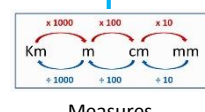
Standard Form



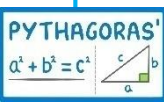
Basic Probability



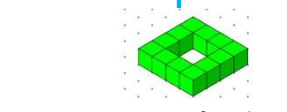
Constructions and Loci



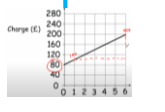
Measures



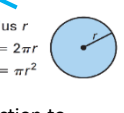
PYTHAGORAS'
 $a^2 + b^2 = c^2$



2D Representations of 3D shapes



Real life Graphs



Introduction to Circumference and Area



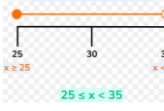
Scatter graphs

Basic Number
 $-1, 46, 8, -14, -65, -29, 54, -22, -29, 34, 77, 78, -97, 31, 150, -45, -1, -3$

Basic Number



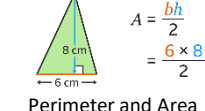
Basic Decimals



Rounding

Basic Percentages
73% of 680

Basic Percentages



Perimeter and Area



Scatter graphs

YEAR 9



Equations

Algebra Recap
 $6x + 2 = 2(3x + 1)$

Algebra Recap



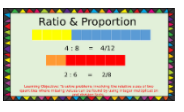
Rotations



Angles

Adding Fractions
 $\frac{3}{10} + \frac{2}{6}$

Adding Fractions



Proportion

Averages
mean 5
median 6

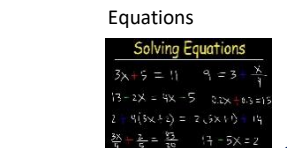
Averages



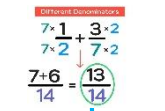
Rounding

Equations
 $x + 3 = 8$
 $x + 3 - 3 = 8 - 3$

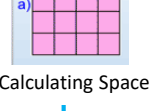
Equations



Arithmetic with Fractions



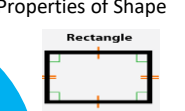
Calculating Space



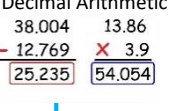
Properties of Shape



Decimal Arithmetic



FDP



Averages

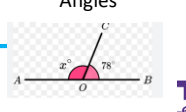


Algebra
 $2x + 4 - x - 3 = x + 1$

Algebra



Measuring Space



Angles

Sequences
19, 15, 11, 7 ...

Sequences



2D and 3D Shapes

Negative Numbers
 $-3 \times -5 = 15$

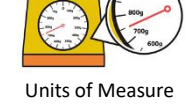
Negative Numbers

Sequences
1 3 6 10 ...

Sequences



Representing Data



Units of Measure

Finding percentages and fractions
30% of 160 = $\frac{3}{10} \times 160$
= $160 \div 10 \times 3$
= 48

Finding percentages and fractions



Negative Numbers



Averages



Multiplication & Division



Presenting Data

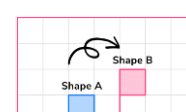


The Number System

YEAR 8

Fraction Decimal Percentages
percentage fraction decimal
30% $\frac{3}{10}$ 0.3

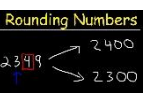
Fraction Decimal Percentages



Transformations

Algebra
Collect like terms
 $4a + 5 + 2a - 3 = 6a + 2$

Algebra



Rounding Numbers



Proportion



Transformations



Angles

Y6 SATS
Year 6 SATS

Y6 SATS